

Appendix to
OHIO'S FOOD AND FARM SYSTEM
IN TRANSITION

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TABLE 1
PRIVATE EMPLOYMENT IN THE U. S. FOOD
AND AGRICULTURAL SECTOR, 1950-1978

Subsector	Thousands of Workers				Percent Change 1978/1950
	1950	1960	1970	1978	
Farming	7,408	5,176	3,126	2,798	-62.2
Farm and Food Related	9,177	8,594	9,786	11,804	+28.6
Farm Machinery	92	112	155	163	+77.5
Food Processing Machinery	82	100	149	185	+125.6
Household Food Equipment	105	155	184	184	+75.2
Food Manufacturing	1,790	1,790	1,786	1,695	-5.3
Misc. Agri. Processing ^{1/}	1,754	1,381	1,378	1,235	-29.6
Agricultural Chemicals	35	46	67	70	+100.0
Food Stores	1,117	1,356	1,731	2,203	+97.2
Eating Places	1,363	1,654	2,575	4,260	+212.5
Other Farm Support	2,839	2,000	1,761	1,809	-36.3
Total Agricultural Sector	16,525	13,770	12,912	14,602	-11.6
Total Private Employment	45,222	54,203	58,325	70,287	+55.4
Agri. as Percent of Total ^{2/} Private Employment	36.5	25.4	22.1	20.8	

Source: Statistical Abstract of the United States, U. S. Dept. of Commerce.

^{1/} Includes tobacco manufactures, textile milling, and leather products.

^{2/} Factored from all other private employment at a ratio of agricultural domestic product to gross national product.

TABLE 2
POPULATION BY RESIDENCE IN OHIO AND U.S.

Residence	1970		1980		Percent Change 1980/1970
	No.	Percent	No.	Percent	
<u>OHIO</u>					
Metropolitan Area ^{1/}	8,596,000	80.7	8,508,000	79.1	-1.0
Nonmetropolitan Area ^{2/}	<u>2,061,000</u>	<u>19.3</u>	<u>2,250,000</u>	<u>20.9</u>	<u>9.2</u>
Total	10,657,000	100.0	10,758,000	100.0	1.0
<u>UNITED STATES</u>					
Metropolitan Area	149,694,000	73.6	162,494,000	72.1	8.5
Nonmetropolitan Area	<u>53,608,000</u>	<u>26.4</u>	<u>62,805,000</u>	<u>27.9</u>	<u>17.2</u>
Total	203,302,000	100.0	225,299,000	100.0	10.8
<u>OHIO AS PERCENT OF U.S.</u>					
Metropolitan Area		5.7		5.2	
Nonmetropolitan Area		3.8		3.6	
Total		5.2		4.8	

Source: Census of Population.

^{1/} Standard Metropolitan Statistical Area (SMSA).

^{2/} Area outside SMSA's.

TABLE 3
AGE DISTRIBUTION OF OHIO AND U.S. POPULATION

Age	1970	1975	1980	Percent Change 1980/1970
<u>OHIO</u>				
Less than 18	3,767,800	3,456,670	3,211,045	-14.8
18 - 50	4,469,544	4,626,785	4,865,220	8.8
More than 50	<u>2,558,652</u>	<u>2,651,545</u>	<u>2,735,334</u>	<u>6.9</u>
Total	10,796,000	10,735,000	10,811,600	0.01
<u>UNITED STATES</u>				
Less than 18	70,811,976	67,367,096	62,497,500	-11.7
18 - 50	84,038,355	91,593,749	101,415,200	20.7
More than 50	<u>48,632,365</u>	<u>53,553,654</u>	<u>57,669,700</u>	<u>18.6</u>
Total	203,482,700	212,514,500	221,582,400	8.9
<u>OHIO AS PERCENT OF U.S.</u>				
Less than 18	5.32	5.13	5.14	
18 - 50	5.32	5.05	4.80	
More than 50	5.26	4.95	4.74	
Total	5.31	5.05	4.88	

Compiled from Sales and Marketing Management: 1981 Survey of Buying Power, 633 Third Ave., New York, N.Y. 10017, July 1981.

TABLE 4
LAND USE IN OHIO AND U.S.

Land Use	1969	1974	1978	Percent Change 1978/1969
Million Acres				
<u>OHIO</u>				
Total Land Area	- - - -	26.22	- - - -	
Land in Farms	17.11	15.66	16.08	- 6.0
Cropland Harvested	8.52	9.68	10.28	20.7
Cropland Not Harvested	2.19	0.59	1.98	- 9.6
Pasture and Grazing Land	1.73	1.52	1.26	-27.2
Woodland in Farms	2.18	1.85	1.98	- 9.2
All Other	2.49	2.12	0.58	-76.7
Land Not in Farms	9.11	10.56	10.14	11.3
<u>UNITED STATES</u>				
Total Land Area	- - - -	2,263.6	- - - -	
Land in Farms	1,063	1,017	1,030	- 3.1
Cropland Harvested	273	303	321	17.6
Cropland Not Harvested	98	54	64	-34.7
Pasture and Grazing Land	88	83	76	-13.6
Woodland in Farms	112	92	95	-15.2
All Other	492	484	437	-11.2
Land Not in Farms	1,201	1,243	1,234	2.7
<u>OHIO AS PERCENT OF U.S.</u>				
Total Land Area	- - - -	1.16	- - - -	
Land in Farms	1.6	1.5	1.6	
Cropland Harvested	3.1	3.2	3.2	
Cropland Not Harvested	2.2	1.1	3.1	
Pasture and Grazing Land	2.0	1.9	1.7	
Woodland in Farms	1.9	2.0	2.1	
All Other	0.5	0.4	0.1	
Land Not in Farms	0.8	0.8	0.8	

Source: Census of Agriculture.

TABLE 5
FOREST LAND IN OHIO

Forest Land Ownership	1968		1978		Percent Change 1978/1968
	Million Acres	Percent Forest Land	Million Acres	Percent of Total	
Commercial	6.33	100.0	6.22	100.0	- 1.74
On Farms	2.69	42.5	1.99	32.0	-26.0
Private Forest	3.29	52.0	3.83	61.6	+16.4
Public Forest	0.35	5.5	0.40	6.4	+14.3

Source: William Cowen, Extension Forester, The Ohio State University.

TABLE 6
OHIO CROPLAND ACREAGE BY LAND CAPABILITY CLASSES

Land Capability Class	1,000 Acres		Percent Change 1977/1967	1977 Percent of Total
	1967	1977		
I	548	189	- 65.5	1.6
II	7,977	7,929	- 0.6	67.5
III	3,216	2,964	- 7.8	25.2
IV	702	501	- 28.6	4.3
Sub-total, Classes I-IV	12,443	11,583	- 6.9	98.6
V	0	4	+100.0	*
VI	251	140	- 44.2	1.2
VII, VIII	48	22	- 54.2	0.2
Sub-total, Classes V-VIII	299	166	- 44.5	1.4
Total	12,742	11,749	- 7.8	100.0

Source: Ohio Resources Inventory, Soil Conservation Service, USDA, undated.

* Less than 0.1.

TABLE 7
PRINCIPAL HAZARDS ON OHIO CROPLAND

Hazard	Acres	Percent
Little or None	548,058	4.3
Erosion	4,467,180	35.1
Wetness	7,500,037	58.8
Soil Limitations	226,598	1.8
Total	12,741,873	100.0

Source: Ohio Soil and Water Conservation Needs Inventory, 1971.

TABLE 8

STATUS OF CONSERVATION TREATMENT TO
OHIO AGRICULTURAL AND FOREST LAND

Use	<u>Adequate Conservation</u>		<u>Need Treatment</u>	
	1967	1977	1967	1977
	- - - - (1,000 Acres) - - - -			
Cropland	4,500	3,743	8,241	8,006
Pastureland	897	575	1,839	2,039
Forest & Woods	970	727	5,370	5,143
Total	6,367	5,045	15,450	15,188

Source: Ohio Resources Inventory, Soil Conservation Service, USDA, undated.

TABLE 9
UTILIZATION OF OHIO'S PRIME FARMLAND,^{1/} 1977

Use of Prime Farmland	Total Prime Farmland Acres (000)	Percent of Total Prime Farmland	Percent of All Land	Prime Farmland As Percent of Total Land in Use Class
Cropland	9,208	81.7	35.4	78.4
Pastureland	802	7.1	3.1	30.7
Forest Land	837	7.4	3.2	14.3
Urban, Built-up and Other	426	3.8	1.6	7.5
TOTAL	11,273	100.0	43.3	

^{1/} Class I - IV.

Source: Ohio Resources Inventory, Soil Conservation Service, U.S.D.A., undated.

TABLE 10
POTENTIAL TO CONVERT OHIO LAND IN PASTURE,
WOODS AND OTHER USES TO CROPLAND, 1977

Land Capability Class	High Potential	Medium Potential	Conversion Unlikely	Zero Potential	Total
	- - - - (1,000 Acres) - - - -				
I	7	21	72	24	124
II	374	443	921	380	2,118
III	250	472	1,121	509	2,352
IV	28	309	865	610	1,812
V	0	0	0	12	12
VI	0	96	583	932	1,611
VII, VIII	0	0	70	1,725	1,795
Total	659	1,341	3,632	4,092	9,724

Source: Ohio Resources Inventory, Soil Conservation Service, USDA, undated.

TABLE 11

DISTRIBUTION OF U.S. FOOD EXPENDITURES, 1979

	Million Dollars ^{1/}	Percent of Total
Raw Materials	88,100	32.9
Imports and Seafood	14,500	5.4
U.S. Farm Products	73,600	27.5
Marketing Costs	179,700	67.1
Imports and Seafood	28,700	10.7
U.S. Farm Products	151,000	56.4
Labor	75,300	28.1
Packaging	19,300	7.2
Transportation	12,000	4.5
Taxes	9,600	3.6
Profits	5,900	2.2
Other ^{2/}	28,900	10.8
Total	267,800	100.0
Total as % of Disposable Income	16.5	

^{1/} Excludes alcoholic beverages. Includes home and away from home expenditures.

^{2/} Includes rent, depreciation, interest, promotion, insurance and other business expenses.

Source: Recomputed from data in Food Prices in Perspective, AIB-427, Economics, Statistics and Cooperatives Service, USDA, July 1979; National Food Review, NFR-12, Economics and Statistics Service, USDA, Fall, 1980; and Agricultural Statistics, USDA, 1979.

TABLE 12

QUANTITY AND RETAIL VALUE OF FOOD
PURCHASED FOR CONSUMPTION IN OHIO

Food Group	1967		1977		Percent Change 1967/1977	
	Quantity ^{1/}	Value ^{2/}	Quantity ^{1/}	Value ^{2/}	Quantity ^{1/}	Value ^{2/}
Red Meat	1,559.7	1,451.3	1,654.2	2,963.7	6.1	104.2
Poultry Meat	392.3	151.5	579.9	437.8	47.8	189.0
Dairy Products	3,653.7	434.8	3,499.9	828.2	-4.2	90.5
Processed Fruits & Vegetables	2,354.1	504.2	2,639.7	1,189.8	12.1	136.0
Milled Grains & Bakery Products	1,203.9	284.7	1,333.2	661.0	10.7	132.2
All Other	6,143.2	2,258.3	6,032.6	4,690.4	-1.8	107.7
Total	15,306.9	5,084.4	15,739.5	10,770.9	2.8	111.8
	<u>Lbs.</u>	<u>Dollars</u>	<u>Lbs.</u>	<u>Dollars</u>		
Per Capita	1,424	473	1,471	1,007	3.3	112.9

^{1/} Million Pounds

^{2/} Million Dollars

^{3/} May Not Add Due to Rounding

Sources: Compiled from Food Consumption, Prices and Expenditures, USDA, AER 138, January, 1976; National Food Situation, USDA, ERS, NFS-158, Nov. 1976; Census of Population, USDC, Bureau of Census; National Food Review, NFR-12, Economics and Statistics Service, USDA, Fall 1980.

TABLE 13

VALUE ADDED TO FOOD CONSUMED IN OHIO: RELATIVE
SHARES BY COMPONENT INDUSTRIES, NET, 1977

Industry	Value Added (Million \$)	Share of Total ^{1/}		Total
		In Ohio	Outside Ohio	
		Percent		
Total Value of Ohio Consumed Food	10,770.5			
Value Added:		76.8	23.2	100.0
Distribution and Marketing	2,595.7	24.2		24.2
Processing and Manufacturing	4,114.3			38.2
Establishments in Ohio	2,658.6	24.7		
Establishments Outside Ohio	1,455.7		13.5	
On-Farm Production	2,423.4			22.5
In Ohio	2,049.9	19.0		
Outside Ohio	373.5		3.5	
Farm Productions Inputs	1,626.3			15.1
Establishments in Ohio	955.1	8.9		
Establishments Outside Ohio	671.2		6.2	

^{1/} Net of exports from Ohio and imports to Ohio from other places.

Source: Compiled from Tables 4, 5, 6 and 7, and Food Consumption,
Prices and Expenditures, USDA, AER 138, January 1976.

TABLE 14

VALUE ADDED TO FOOD BY FOOD MARKETING, DISTRIBUTION,
MANUFACTURING AND PROCESSING FIRMS LOCATED IN OHIO

Type of Firm	1967	1977	Percent Change 1977/1967	Real Growth 1977/1967 ^{7/} (Percent)
Marketing & Distribution	\$1,314,892,000	\$2,595,700,000	97.4	4.4
Manufacturing & Processing	1,306,700,000	2,658,600,000	103.5	7.6
Meat ^{1/}	154,900,000	327,800,000	111.6	11.9
Dairy ^{2/}	238,000,000	400,600,000	68.3	-11.0
Processed Fruits & Vegetables ^{3/}	180,600,000	328,900,000	82.1	- 3.7
Food Grain Mill Products ^{4/}	81,700,000	206,000,000	152.1	33.3
Bakery Products ^{5/}	220,400,000	443,200,000	101.1	6.3
All Other Mfg. & Processing ^{6/}	431,100,000	952,100,000	120.9	16.8
Total In Mkt'g., Dist., Mfg. & Processing	2,621,592,000	5,254,300,000	100.4	6.0

^{1/} SIC 201, Includes poultry meat.

^{2/} SIC 202.

^{3/} SIC 203.

^{4/} SIC 204, excludes pet food and feeds (SIC 2047, 2048)

^{5/} SIC 205

^{6/} SIC 206-209.

^{7/} Dollar values deflated by the index of producer prices for finished foods.

Sources: Compiled from Food Consumption, Prices and Expenditures, USDA, AER 138, January, 1976, and Census of Manufactures, USDC, Bureau of Census.

TABLE 15

VALUE ADDED TO FOOD BY FARMING OPERATIONS IN OHIO

Enterprise	1967	1977	Percent Change 1977/1967	Real Growth ^{8/} 1977/1967 (Percent)
Livestock for Meat ^{1/}	\$190,367,000	\$340,355,000	78.8	- 6.3
Poultry ^{2/}	NA ^{7/}	100,828,000	NA	NA
Dairy ^{3/}	153,473,000	295,365,000	92.4	0.8
Fruits and Vegetables ^{4/}	31,334,000	70,199,000	124.3	17.4
Grains ^{5/}	218,292,000	1,224,398,000	460.9	193.8
Other ^{6/}	244,299,000	18,760,000	NA	NA
Total	806,431,000	2,049,905,000	154.2	33.2

Sources: Compiled from Ohio Agricultural Statistics, USDA, SRS; Ohio Crop Enterprise Budgets and Ohio Livestock Enterprise Budgets, OCES and Farm Income Statistics, USDA, ERS.

^{1/} SIC code 021

^{2/} SIC code 025

^{3/} SIC code 024

^{4/} SIC codes 016, 017

^{5/} SIC code 011

^{6/} SIC codes 0131, 0132, 0133, 0134, 0139, 018, 027, 0191

^{7/} Included in "other"

^{8/} Dollar values deflated by the index of producer prices for crude foodstuffs and feedstuffs.

TABLE 16

VALUE ADDED BY FIRMS MANUFACTURING AND
DISTRIBUTING FARM PRODUCTION INPUTS IN OHIO

Type of Farm	1967	1977	Percent Change 1977/67	Real Growth ^{5/} 1977/67 (Percent)
Distribution of Farm Inputs ^{1/}	\$263,928,000	\$413,400,000	56.7	-22.3
Manufacturing of Farm Inputs	310,650,000	541,700,000	74.3	-13.5
Fertilizers and Agr'l. Chemicals ^{2/}	50,300,000	186,200,000	270.2	83.5
Equipment and Machinery ^{3/}	93,100,000	158,200,000	69.9	-15.8
Processed Feeds ^{4/}	63,700,000	39,400,000	-38.1	-69.3
Other	103,550,000	157,900,000	70.0	-15.8
Total in Mfg. & Dist. of Inputs	574,588,000	955,100,000	66.2	-17.6

^{1/} Assumes that 50% of the value added in the input industries is added in distribution, that all farm inputs used in Ohio's farms are distributed by firms located in Ohio, and that the difference between the total value of Ohio's farm production and the value added by that production is equal to the value added in the farm production input industries.

^{2/} SIC No. 287

^{3/} SIC No. 352; 1% SIC No. 356; 1% SIC No. 3621; 0.5% SIC No. 371

^{4/} SIC No. 2048

^{5/} Dollar values deflated by the index of producer prices for intermediate materials, supplies and components

Sources: Compiled from Census of Manufactures, USDC, Bureau of Census;
and Farm Income Statistics, USDA, ERS.

TABLE 17

ENERGY USE IN OHIO'S AGRICULTURAL AND FOOD INDUSTRIES, 1979 (10¹² BTU)

Energy Source	In-Home Preparation	Marketing and Distribution	Food Processing and Manufacturing	Farm Production	Production and Distribution of Farm Inputs	Total in Food and Agriculture	Percent of Total
Natural Gas	50.6	--	48.5	--	42.5	141.6	28.6
Petroleum	--	49.7	2.0	36.6	0.3	88.6	17.9
Coal	--	--	10.1	--	0.5	10.6	2.1
Electricity	202.4	--	30.8	1.9	6.4	241.5	48.7
Other	--	--	11.3	--	1.8	13.1	2.6
Total	253.0	49.7	102.7	38.5	51.5	495.4	100.0
Percent of Total	51.1	10.0	20.7	7.8	10.4	100.0	

Source: Compiled from The U.S. Food and Fiber Sector: Energy Use and Outlook ERS, USDA, Sept. 1974, various reports of the Census of Manufactures, Bureau of the Census, USDA, Final Report to the General Assembly, The Ohio Energy Emergency Commission, Oct. 1975, and Energy Use in the Food System, Federal Energy Administration, May, 1976. Adjusted by food consumption and production to 1979.

TABLE 18

CASH RECEIPTS FROM FARM MARKETINGS, OHIO, 1970-1979

Year	Farm Marketings			Percent of All Commodities	
	Livestock and Livestock Products	Crops	Total Livestock and Crops	Livestock and Livestock Products	Crops
	- - - - Thousand Dollars - - - -			- Percent -	
1970	778,106	599,739	1,377,845	56.5	43.5
1971	770,001	631,632	1,401,633	54.9	45.1
1972	863,471	714,094	1,577,565	54.7	45.3
1973	1,043,150	1,055,697	2,098,847	49.7	50.3
1974	967,922	1,571,346	2,539,268	38.1	61.9
1975	1,125,965	1,632,648	2,758,613	40.8	59.2
1976	1,196,434	1,630,293	2,826,729	42.4	57.6
1977	1,145,306	1,272,564	2,872,870	39.9	60.1
1978	1,274,119	1,747,092	3,021,211	42.2	57.8
1979	1,392,746	2,083,376	3,476,122	40.1	59.9

Source: 1979 Ohio Farm Income, ESO 757.

TABLE 19

CASH RECEIPTS BY COMMODITIES IN OHIO, WITH RANK IN U.S., 1979

Commodity or Group	1978		1979		Rank in U.S.
	Cash Receipts from Sales	Percent of Total	Cash Receipts from Sales	Percent of Total	
	Thousand Dollars		Thousand Dollars		
Soybeans	780,131	25.8	870,190	25.0	6
Corn	462,420	15.3	639,270	18.4	6
Dairy Products	449,004	14.9	507,779	14.6	7
Cattle & Calves	385,551	12.8	402,727	11.6	19
Hogs	272,442	9.0	304,780	8.8	9
Wheat	136,895	4.5	215,561	6.2	8
Poultry & eggs ^{1/}	133,286	4.4	140,012	4.0	--
Greenhouse & nursery	120,000	4.0	125,000	3.6	3
Vegetables, ^{2/} processing	89,952	3.0	86,034	2.5	6
All hay	47,502	1.6	45,315	1.3	18
Fruits & nuts ^{3/}	25,808	.8	24,509	.7	--
Tobacco, burley	34,670	1.1	22,487	.6	4
Oats	14,302	.5	19,718	.6	6
Other livestock ^{4/}	18,105	.6	19,010	.5	--
Sheep, lambs & wool	13,691	.4	16,596	.5	13
Potatoes	11,467	.4	9,496	.3	18
Other crops ^{5/}	6,328	.2	7,986	.2	--
Sugar beets	7,958	.3	7,155	.2	11
Forest Products	5,200	.2	6,100	.2	--
Popcorn	3,063	.1	3,563	.1	4
Honey & beeswax	2,040	.1	1,842	.1	26
Hayseed crops ^{6/}	1,396	*	992	*	--
Total	3,021,211	100.0	3,476,122	100.0	

^{1/}Includes eggs, farm chickens, broilers and turkeys. ^{2/}Does not include potatoes.
^{3/}Includes berries. ^{4/}Includes turkey eggs, ducks, other poultry, horses and mules,
goats, mink pelts and all other livestock. ^{5/}Includes rye, barley, mushrooms, buckwheat,
sorghum grain, spelt, sunflower seed, maple products, alfalfa seed, sweet clover seed
and other seeds. ^{6/}Timothy and red clover seed only. *Less than 0.05 percent.

Source: Ohio Farm Income, October 1980.

TABLE 20
CROP ACREAGES IN OHIO AND U.S.

Crop	1970	1975	1980	Percent Change 1980/1970
- - - - 1,000 acres - - - -				
<u>Ohio</u>				
<u>Feed Grains</u>				
Corn	2,705.4	3,490.0	3,900.0	+44.2
Oats	515.0	500.0	290.0	-43.7
Barley	17.0	12.0	8.0	-52.9
Rye	15.0	7.0	7.0	-53.3
<u>Cash Crops</u>				
Wheat	1,003.9	1,770.0	1,370.0	+36.5
Soybeans	2,387.6	3,100.0	3,760.0	+57.5
Sugar Beets	39.1	39.2	17.8	-54.5
Potatoes	14.4	11.6	10.8	-25.0
<u>Processing Vegetables</u>				
Tomatoes	26.5	24.1	18.7	-29.4
<u>Forage Crops</u>				
Corn Silage	211.4	225.0	215.0	-11.7
All Hay	1,460.0	1,535.0	1,430.0	- 2.1
Total Cropland Harvested	8,515.3	9,534.4	11,040.0	+29.6
<u>United States</u>				
<u>Feed Grains</u>				
Corn	57,358	67,625	73,061	+27.4
Oats	18,638	13,038	8,640	-53.6
Barley	9,725	8,617	7,233	-25.6
Rye	4,196	728	664	-84.2
<u>Cash Crops</u>				
Wheat	43,564	69,499	70,853	+62.6
Soybeans	43,082	53,617	67,856	+57.5
Sugar Beets	1,500	1,517	1,187	-20.9
Potatoes	1,421	1,260	1,155	-18.7
<u>Processing Vegetables</u>				
Tomatoes	245	338	312	+27.3
<u>Forage Crops</u>				
Corn Silage	8,065	9,848	9,261	+14.8
All Hay	63,234	61,353	59,437	- 6.0
Total Cropland Harvested	273,016	325,000	340,905	+24.9
<u>Ohio as Percent of U.S.</u>				
<u>Feed Grain</u>				
Corn	4.7	5.4	5.3	
Oats	2.8	3.8	3.4	
Barley	0.2	0.1	0.1	
Rye	0.4	0.2	1.0	
<u>Cash Crops</u>				
Wheat	2.3	2.6	1.9	
Soybeans	5.5	5.8	5.5	
Sugar Beets	2.6	2.1	1.5	
Potatoes	1.0	0.8	0.9	
<u>Processing Vegetables</u>				
Tomatoes	10.8	7.1	6.0	
<u>Forage Crops</u>				
Corn Silage	2.6	2.1	2.3	
All Hay	2.3	2.5	2.4	
Total Cropland Harvested	3.1	2.9	3.2	

Source: Ohio Agricultural Statistics, Crop Reporting Service.

TABLE 21
TWO YEAR AVERAGE YIELDS OF CROPS IN OHIO AND U.S.

Crops	1970/71	1975/76	1979/80	Percent Change 1979-80/1970-71
<u>Ohio</u>				
<u>Feed Grains</u> (bu/ac)				
Corn	85.0	94.5	114.0	34.1
Oats	64.0	58.0	68.5	7.0
Barley	50.0	46.0	52.0	4.0
Rye	30.5	29.0	32.0	4.9
<u>Cash Crops</u>				
Wheat (bu/ac)	41.0	41.5	48.5	18.3
Soybeans (bu/ac)	29.5	32.5	35.8	21.4
Sugar Beets (T/ac)	19.8	20.0	19.3	- 2.5
Potatoes (cwt/ac)	209.0	222.5	221.5	6.0
<u>Processing Vegetables</u>				
Tomatoes (T/ac)	22.2	19.3	18.7	-16.7
<u>Forage Crops</u>				
Corn Silage (T/ac)	14.0	12.5	14.8	5.7
Hay (T/ac)	2.1	2.3	2.5	19.0
<u>United States</u>				
<u>Feed Grains</u> (bu/ac)				
Corn	80.3	84.5	100.4	25.0
Oats	52.6	46.3	53.7	2.1
Barley	44.2	43.3	50.3	13.8
Rye	27.0	21.2	25.2	- 6.7
<u>Cash Crops</u>				
Wheat (bu/ac)	27.1	30.4	33.8	24.7
Soybeans (bu/ac)	27.1	26.8	29.5	8.9
Sugar Beets (T/ac)	19.3	19.5	19.6	1.6
Potatoes (cwt/ac)	229.5	253.5	266.0	15.9
<u>Processing Vegetables</u>				
Tomatoes (T/ac)	20.7	19.5	23.5	13.5
<u>Forage Crops</u>				
Corn Silage (T/ac)	12.0	11.7	13.2	10.0
Hay	2.1	2.1	2.3	9.5
<u>Ohio as Percent of U.S. Average</u>				
<u>Feed Grains</u>				
Corn	105.9	111.8	113.5	
Oats	121.7	125.3	127.6	
Barley	113.1	106.2	103.4	
Rye	113.0	136.8	127.1	
<u>Cash Crops</u>				
Wheat	151.3	136.5	143.5	
Soybeans	108.9	121.3	121.4	
Sugar Beets	102.6	102.6	98.5	
Potatoes	91.1	87.8	83.4	
<u>Processing Vegetables</u>				
Tomatoes	107.2	99.0	79.6	
<u>Forage Crops</u>				
Corn Silage	116.7	106.8	112.1	
Hay	100.0	109.5	108.7	

Source: Statistical Reporting Service.

TABLE 22

BREEDING LIVESTOCK ON OHIO AND U.S. FARMS

Species	1970	1975	1980	Percent Change 1980/1970
- - - - (1,000 head) - - - -				
<u>Ohio</u>				
Milk Cows	424	377	380	-10.4
Beef Cows	341	431	430	26.1
Hog & Pig Inventory	2,479	1,790	2,050	-17.3
Sows	323	n.a.	290	-10.2
Sheep & Lamb, Inventory	747	471	320	-57.2
Ewes	348	n.a.	215	-38.2
Hens, Layers	9,662	9,526	9,037	- 6.5
<u>United States</u>				
Milk Cows	12,000	11,221	10,810	- 9.9
Beef Cows	36,689	45,421	36,983	0.8
Hog & Pig Inventory	67,433	55,062	65,255	- 3.1
Sows	7,877	7,405	9,481	20.4
Sheep & Lamb Inventory	20,423	14,538	12,513	-38.6
Ewes	2,422	1,520	1,770	-26.9
Hens, Layers	323,800	286,000	288,000	-11.1
<u>Ohio as Percent of U.S.</u>				
Milk Cows	3.5	3.4	3.5	
Beef Cows	1.0	1.0	1.2	
Hog & Pig Inventory	3.7	3.3	3.1	
Sows	4.1	n.a.	2.9	
Sheep & Lamb Inventory	3.7	3.2	2.6	
Ewes	14.4	n.a.	12.1	
Hens, Layers	3.0	3.3	3.1	

Source: Agricultural Statistics, Statistical Reporting Service.

TABLE 23

LIVESTOCK PRODUCTS SOLD FROM OHIO AND U.S. FARMS

Product and Unit	1970	1975	1979	Percent Change 1979/1970
<u>Ohio</u>				
Milk Sold (mil. lbs.)	4,271	4,143	4,185	- 2.0
Cattle Marketed (1,000 head)	1,161	952	604	-48.0
Hogs Marketed (1,000 head)	4,104	3,149	3,082	-24.9
Lambs & Sheep Sold (1,000 head)	610	381	257	-57.9
Eggs Marketed (000)	2,032	2,037	2,199	8.2
Turkeys Marketed (mil. lbs.)	75	66	53	-29.3
Broilers Marketed (mil. lbs.)	38	48	71	86.8
<u>United States</u>				
Milk Sold (mil. lbs.)	112,960	115,458	121,129	7.2
Cattle Marketed (1,000 head)	46,709	48,496	48,068	3.0
Hogs Marketed (1,000 head)	85,817	81,762	92,371	7.7
Lambs & Sheep Sold (1,000 head)	14,838	11,995	7,728	-47.9
Eggs Marketed (mil.)	67,277	65,473	69,107	2.7
Turkeys Marketed (mil. lbs.)	2,026	2,277	2,958	46.0
Broilers Marketed (mil. lbs.)	10,819	11,321	15,478	43.1
<u>Ohio as Percent of U.S.</u>				
Milk Sold	3.8	3.6	3.5	
Cattle Marketed	2.5	2.0	1.3	
Hogs Marketed	4.8	3.9	3.3	
Lambs & Sheep Sold	4.1	3.2	3.3	
Eggs Marketed	3.0	3.1	3.2	
Turkeys Marketed	3.7	2.9	1.8	
Broilers Marketed	0.4	0.4	0.5	

Source: Agricultural Statistics, Statistical Reporting Service.

TABLE 24

U.S. AND OHIO AGRICULTURAL EXPORTS, SELECTED COMMODITIES
SELECTED FISCAL YEARS

Commodity and Year	U.S.		OHIO	
	Total Value of Exports (Mil. \$)	Exports Share of Total Output (Percent)	Value of Exports (Mil. \$)	Share of U.S. Exports (Percent)
All Commodities				
1970	\$ 6,721	25.6	\$ 231.7	3.5
1975	21,578	31.3	780.8	3.6
1979	31,983	36.9	1,154.6	3.6
Feed Grains ^{1/}				
1970	1,015.5	12.9	41.7	4.1
1975	4,762.5	27.0	226.4	4.8
1979	7,026.1	34.8	362.4	5.0
Wheat and Flour				
1970	965.5	54.8	28.9	3.0
1975	4,944.7	55.0	187.1	3.8
1979	6,300.0	62.0	126.1	2.0
Soybeans and Products				
1970	1,072.5	38.5	77.3	7.2
1975	2,951.2	42.2	194.0	6.6
1979	6,164.0	39.8	504.7	8.2
Animal Products ^{2/}				
1970	673.5	n.a.	18.3	2.7
1975	1,703.7	n.a.	33.4	2.0
1979	3,642.7	n.a.	54.8	1.9

^{1/} Corn, sorghum, barley and rye.

^{2/} Dairy products; meats; hide and skins; lard and tallow.

Sources: Foreign Agricultural Trade of U.S.; Agricultural Statistics;
Statistical Bulletin 548; ERS, USDA, Ohio Agricultural
Statistics.

TABLE 25

GROSS AND NET INCOME FROM FARMING IN OHIO AND U.S.

Realized Income	1970	1975	1979	Percent Change 1979/1970
- - - - Million dollars - - - -				
<u>Ohio</u>				
Cash Receipts	\$ 1,377.8	\$ 2,758.6	\$ 3,476.1	152.4
Government Payments	89.6	8.8	10.6	- 88.2
Non-Money & Other Farm Income	197.5	348.3	700.3	254.6
Total Receipts	1,664.9	3,115.7	4,187.0	151.5
Production Expenses	1,288.2	2,343.8	3,579.0	177.8
Realized Net Farm Income	376.7	771.9	608.0	61.4
Net Change in Farm Inv.	+ 6.9	+98.2	+170.1	
Total Net Farm Income	383.6	870.1	778.1	102.8
<u>United States</u>				
Cash Receipts	\$50,539	\$89,563	\$131,459	160.1
Government Payments	3,717	807	1,375	- 63.0
Non-Money & Other Farm Income	4,313	7,805	12,676	193.9
Total Receipts	58,569	98,175	145,510	148.4
Production Expenses	44,424	75,484	118,619	167.0
Realized Net Farm Income	14,145	22,691	26,891	90.1
Net Change in Farm Inv.	6	2,868	4,068	
Total Net Farm Income	14,151	25,559	30,959	118.8
<u>Ohio as Percent of U.S.</u>				
Cash Receipts	2.7	3.1	2.6	
Government Payments	2.4	1.1	0.7	
Non-Money & Other Farm Income	4.6	4.5	5.5	
Total Receipts	2.8	3.2	2.9	
Production Expenses	2.9	3.1	3.0	
Realized Net Farm Income	2.7	3.4	2.3	
Net Change in Inventories		3.4	4.2	
Total Net Farm Income	2.7	3.4	2.5	

Source: Farm Income Statistics, ERS-USDA, July 1976; 1979 Ohio Farm Income.

TABLE 26

AVERAGE REALIZED NET INCOME PER FARM, OHIO AND U.S.

Realized Income	1970	1975	1979	Percent Change 1979/1970
<u>Ohio</u>				
Gross Income	\$13,991	\$26,631	\$44,919	221.1
Production Expenses	10,825	20,033	36,897	240.8
Net Farm Income	3,166	6,598	8,022	153.4
<u>United States</u>				
Gross Income	19,825	34,956	64,142	223.5
Production Expenses	15,037	26,877	50,866	238.3
Net Farm Income	4,788	8,079	13,276	177.3
<u>Ohio as Percent of U.S.</u>				
Gross Income	70.6	76.2	70.0	
Production Expenses	72.0	74.5	72.5	
Net Farm Income	66.1	81.7	60.4	

Source: Farm Income Statistics ERS-USDA, July, 1976; Ohio Farm Income, 1979, ESO 757.

TABLE 27

PER CAPITA PERSONAL INCOME OF FARM
AND NON-FARM POPULATION IN U.S.

Income Source	1970	1975	1979	Percent Change 1979/1970
<u>Personal Income of Farm Population:</u>				
Farm Sources	\$1,339	\$2,469	\$4,604	243.8
Nonfarm Sources	1,490	2,556	4,261	186.0
All Sources	2,829	5,026	8,865	213.4
<u>Disposable Personal Income of All:</u>				
Farm Population				
All Sources	\$2,520	\$4,520	\$7,535	199.0
Nonfarm Population				
All Sources	3,389	5,113	7,358	117.1
Total Population				
All Sources	3,348	5,088	7,364	120.0
Farm as Percentage of Nonfarm	74.1	88.4	102.4	

Source: Farm Income Statistics, ERS-USDA, July, 1976.
Economic Indicators of the Farm Sector: Income and Balance Sheet
Statistics, 1979, issued December 1980.

TABLE 28 ECONOMIC RETURNS TO EQUITY IN FARM
PRODUCTION ASSETS FROM FARM INCOME
AND CAPITAL GAINS, U.S.

	1970	1975	1979	Percent Change 1979/1970
	- - - - Billion Dollars - - - -			
Residual Income to Equity	7.9	17.5	22.6	+ 186.1
Capital Gains on Production Assets	10.1	52.1	97.1	+ 861.4
Equity Value of Farm Assets	208.7	340.5	555.1	+ 166.0
	- - - - Percent of Equity Value - - - -			
Returns From Income	3.8	5.1	4.1	+ 7.9
Returns From Capital Gains	- 0.4	8.5	3.6	+1,000.0
Total Returns	3.5	13.6	7.7	+ 120.0

Source: Economic Indicators of The Farm Sector: Income and Balance Sheet Statistics, 1979. Statistical Bulletin No. 650, Economics and Statistics Service, USDA, December 1980.

TABLE 29 BALANCE SHEET OF THE FARM SECTOR, OHIO AND U.S.

	1970		1980		Percent Change 1980/1970	
	Ohio	U.S.	Ohio	U.S.	Ohio	U.S.
	- - - - Billion Dollars - - - -					
Assets						
Real Estate	7.0	215.8	27.8	671.2	+297.1	+211.0
Nonreal Estate	2.5	76.3	7.8	210.3	+212.0	+175.6
Financial Assets	0.6	22.8	1.0	38.5	+ 66.7	+ 68.9
Total	10.1	314.9	36.6	920.0	+262.4	+192.2
Liabilities and Equity						
Real Estate Debt	0.9	29.2	2.5	82.1	+177.8	+181.2
Nonreal Estate Debt	0.6	23.8	1.8	75.2	+200.0	+216.0
Total Liabilities	1.5	53.0	4.3	157.3	+186.7	+196.8
Owners Equity	8.6	261.9	32.3	762.7	+275.6	+191.2
Total	10.1	314.9	36.6	920.0	+262.4	+192.2
Debt to Asset Ratio (%)	14.9	16.8	11.7	17.1		

Source: Farm Finance, 1981 Ohio Outlook Guide, Ohio State University, October 1980.

TABLE 30

CASH FLOWS IN THE U.S. FARMING SECTOR

	1970	1975	1978	Percent Change 1978/70
	- - - - Billion Dollars - - - -			
Cash Income ^{1/}	37.9	60.5	76.0	+100.5
Receipts on Loans ^{2/}	2.2	9.0	17.5	+695.5
Total Inflow	40.1	69.5	93.5	+133.2
Purchases of Machinery and Motor Vehicles	4.9	8.7	12.0	+144.9
Capital Improvements	2.4	4.7	6.2	+158.3
Other Capital Expenditures ^{3/}	2.2	2.3	5.4	+145.5
Purchases of Real Estate	4.1	8.8	11.3	+175.6
Consumption and Other Cash Uses	26.5	45.0	58.6	+121.1
Total Outflow	40.1	69.5	93.5	+133.2

^{1/} Includes both farm and nonfarm income.

^{2/} Excludes CCC loans.

^{3/} Includes net additions to household furnishings, commercial bank deposits and currency, savings bonds, equity in farmer cooperatives and purchases of breeding livestock.

Source: Agricultural Finance Outlook, AFO-21, Economics and Statistics Service, USDA, November 1980.

TABLE 31
SOURCES OF FARM CREDIT, OHIO AND U.S., PERCENT OF TOTAL DEBT

Lender	Ohio		U.S.	
	1970	1980	1970	1980
(Percent)				
FARM REAL ESTATE DEBT				
Commercial Bank	24.6	18.6	12.1	10.5
Life Insurance Companies	12.8	10.2	19.7	14.8
Federal Land Banks ,	24.7	38.6	22.9	36.1
Farmers Home Admin.	0.7	3.8	7.8	8.0
Individuals, Others	37.2	28.8	37.5	30.6
NON REAL ESTATE DEBT				
Commercial Bank	36.3	24.4	48.8	41.3
Prod. Credit Assns.	31.7	47.7	21.2	24.4
Farmers Home Admin.	1.8	3.3	3.7	12.0
Merchants and Dealers	30.2	24.6	26.3	22.6

Source: Warren F. Lee, Professor, Department of Agricultural Economics and Rural Sociology, The Ohio State University.

TABLE 32
FARM NUMBERS BY SIZE IN ACREAGE, OHIO AND U.S.

	Ohio				U.S.			
	Number		Percent of Total		Number		Percent of Total	
	1969 (000)	1978 (000)	1969	1978	1969 (000)	1978 (000)	1969	1978
All Farms	111.3	95.8	100	100	2,730.2	2,479.9	100	100
Farms by Size (Acres/Farm)								
1,000 +	0.5	1.1	0.5	1.2	150.9	162.4	5.5	6.5
500-999	3.8	5.0	3.4	5.2	215.7	215.2	7.9	8.7
180-499	27.1	22.4	24.3	23.3	726.4	596.5	26.6	24.1
50-179	54.6	41.0	49.0	42.8	1,001.7	814.4	36.7	32.8
Less than 50	25.4	26.3	22.8	27.5	633.6	691.5	23.3	27.9
Avg. Farm Size (Acres)	153.6	168.0			384.5	416.0		

Source: U.S. Census of Agriculture

TABLE 33

FARMS BY ECONOMIC CLASS, OHIO AND U.S., 1978 AND 1974

Economic Class	OHIO		U.S.		Ohio as
	Number	Percent	Number	Percent	Percent of U.S.
- 1974 -					
<u>Commercial Farms</u>					
Ia \$100,000 & over	4,060	4.2	110,000	3.9	3.7
Ib 40,000-99,999	11,047	11.3	339,000	12.1	3.3
II 20,000-39,999	12,694	13.0	565,000	20.1	2.2
III 10,000-19,999	<u>14,755</u>	<u>15.1</u>	<u>326,000</u>	<u>11.6</u>	<u>4.5</u>
Total	42,556	43.6	1,340,000	47.7	3.2
<u>Other Farms</u>					
IV \$ 5,000-9,999	14,659	15.0	254,000	9.0	5.8
V 2,500-4,999	12,662	13.0	485,000	17.3	2.6
VI Up to-2,499	<u>27,820</u>	<u>28.4</u>	<u>729,000</u>	<u>26.0</u>	<u>3.8</u>
Total	55,141	56.4	1,468,000	52.3	3.8
TOTAL FARMS	97,697	100.0	2,808,000	100.0	3.5
- 1978 -					
<u>Commercial Farms</u>					
Ia \$100,000 & over	6,740	7.0	223,570	9.0	1.8
Ib 40,000-99,999	13,051	13.6	364,345	14.7	3.2
II 20,000-39,999	12,394	12.9	306,886	12.4	4.1
III 10,000-19,999	<u>13,720</u>	<u>14.3</u>	<u>309,858</u>	<u>12.5</u>	<u>4.8</u>
Total	45,905	47.8	1,204,659	48.6	3.6
<u>Other Farms</u>					
IV \$ 5,000-9,999	14,575	15.2	331,200	13.4	4.5
V 2,500-4,999	13,631	14.2	332,084	13.4	3.3
VI Up to-2,499	<u>21,980</u>	<u>22.9</u>	<u>611,932</u>	<u>24.7</u>	<u>3.8</u>
Total	49,916	52.2	1,275,216	51.4	3.8
TOTAL FARMS	95,821	100.0	2,479,875	100.0	3.7
- PERCENT CHANGE, FARM NUMBERS, 1978/1974 -					
<u>Commercial Farms</u>					
Ia \$100,000 & over	+66.0		+103.2		
Ib 40,000-99,999	+18.1		+7.5		
II 20,000-39,999	-2.4		-45.7		
III 10,000-19,999	-7.0		-5.0		
Total	+7.9		-10.1		
<u>Other Farms</u>					
IV \$ 5,000-9,999	-0.6		+30.4		
V 2,500-4,999	+7.7		-31.5		
VI Up to-2,499	-21.0		-16.1		
Total	-9.5		-13.1		
TOTAL FARMS	-1.9		-11.7		

Sources: Statistical Bulletin 557, Table 1D, Farm Income Situation, ERS-USDA, July 1976, and Agriculture Census, 1978.

TABLE 34

COMMERCIAL FARMS^{1/} BY TYPE IN OHIO AND U.S.

Type	1969		1974		Percent Change 1974/1969
	Number	Percent	Number	Percent	
<u>Ohio</u>					
Dairy	12,670	19.1	8,877	12.6	- 29.9
Swine and Cattle	21,537	32.5	10,601	15.1	- 50.8
Poultry	1,743	2.6	1,152	1.6	- 33.9
Cash Grain	22,076	33.3	38,348	54.6	+ 73.7
Other Field Crops	243	0.4	958	1.4	+294.2
Fruit & Nuts	627	0.9	631	.9	+ 0.6
Vegetable	850	1.3	620	.9	- 27.1
Miscellaneous (includes Orna- mental and Floriculture)	1,682	2.6	1,095	1.6	- 34.9
Other	4,841	7.3	8,001	11.4	+ 65.3
Total	66,269	100.0	70,283	100.0	+ 6.1
<u>United States</u>					
Dairy	260,956	15.1	196,057	11.6	- 24.9
Swine and Cattle	568,201	32.8	424,733	25.1	- 25.3
Poultry	57,545	3.3	42,690	2.5	- 25.8
Cash Grain	369,312	1.3	580,254	34.2	+ 57.1
Other Field Crops	31,190	1.8	67,095	4.0	+115.1
Fruit & Nuts	53,754	3.1	51,270	3.0	- 4.6
Vegetable	19,660	1.1	19,548	1.2	- 0.6
Miscellaneous (includes Orna- mental and Floriculture)	36,418	2.1	18,513	1.1	- 49.2
Other	336,647	19.4	294,887	17.4	- 12.4
Total	1,733,683	100.0	1,695,047	100.0	- 2.2
<u>Ohio as Percent of U.S.</u>					
Dairy		4.9		4.5	
Swine and Cattle		3.8		2.5	
Poultry		3.0		2.7	
Cash Grain		6.0		6.6	
Other Field Crops		0.8		1.4	
Fruit & Nuts		1.2		1.2	
Vegetable		4.3		3.2	
Misc. (includes Ornamental and Floriculture)		4.6		5.9	
Other		1.4		2.7	
Total Commercial Farms		3.8		4.1	

^{1/} Commercial Farms defined as those that sell over \$2500 of farm products.

Source: U.S. Census of Agriculture.

TABLE 35 INCOME PER FARM OPERATOR FAMILY, U.S., 1979

Gross Farm Sales	Net Farm Income ^{1/} (\$)	Off-Farm Income (\$)	Total Income (\$)	Off-Farm Income as Share of Total (%)
\$100,000 and over	47,827	13,398	61,225	21.9
\$ 40,000 - \$99,999	19,553	8,647	28,200	30.7
\$ 20,000 - \$39,999	10,489	9,792	20,281	48.3
\$ 10,000 - \$19,999	5,398	13,174	18,572	71.0
\$ 5,000 - \$ 9,999	3,012	17,037	20,049	85.0
\$ 2,500 - \$ 4,999	1,769	20,275	22,044	92.0
Less Than \$2,500	1,832	20,516	22,348	91.8
All Farms	11,526	14,728	26,254	56.1

^{1/} Including government payments, value of home consumption, and rental value of farm dwelling.

Source: Economic Indicators of the Farm Sector: Income and Balance Sheet Statistics 1979, USDA-ESS, SB650.

TABLE 36 FARM NUMBERS AND AVERAGE RATE OF RETURNS TO EQUITY, U.S. 1970

Economic Class	Gross Farm Sales	Farms (000)	Distribution (%)	Rate of Return to Equity (%)
Class Ia	\$100,000 and over	55	2	6.9
Class Ib	\$ 40,000 - \$99,999	178	6	5.9
Class II	\$ 20,000 - \$39,999	343	12	4.4
Class III	\$ 10,000 - \$19,999	390	13	2.9
Class IV	\$ 5,000 - \$ 9,999	397	13	-0.1
Class V	\$ 2,500 - \$ 4,999	435	15	-6.5
Class VI	Less than \$ 2,500	1,156	39	-6.1
All Farms		2,954	100	2.1

Source: Hottel, J. Bruce and Reinsel, Robert D., "Return to Equity Capital by Economic Class of Farm" AFR No. 347. ERS-USDA. August, 1976.

TABLE 37

TOTAL FARM EXPENDITURES AND FINANCING
BY SIZE OF FARM, U.S., 1970^{1/}

Income Classifications	Farm Operators Percent of Total	Farm Expenditures Percent of Total ^{2/}	Total Farm Expenditures ^{2/}		
			Average Dollars	Paid in Cash ^{3/}	Financed with Credit ^{4/}
				(Percent)	
Sales Class					
\$100,000 or more	2.6%	34.0%	\$218,073	65.5%	34.5%
40,000-99,999	8.4	23.2	45,347	61.0	39.0
20,000-39,999	14.0	18.6	21,885	66.9	33.1
10,000-19,999	15.7	11.6	12,175	72.9	27.1
5,000- 9,999	14.9	5.8	6,416	79.0	21.0
2,500- 4,999	14.5	3.4	3,819	77.9	22.1
50- 2,499	9.1	.9	1,688	87.9	12.1
Part-time	15.4	2.0	2,133	78.2	21.8
Part-retirement	5.5	.5	1,369	91.3	8.7

Note: Figures may not add to totals because of roundings.

^{1/} For 49 states, excluding Alaska.

^{2/} Operators' share of operating expenses plus their capital purchases (39.7 bil.). Excludes landlord and contractor expenditures.

^{3/} Includes cash payments with personal funds at time of purchase or within 1 month of purchase.

^{4/} Excludes credit extended for 1 month or less.

Source: Williams, Dorwin, "Farm Expenditures and Their Financing in 1970", AER No. 340, ERS-USDA, Washington, D.C., September 1976.

TABLE 38
DEBT TO ASSET RATIO FOR U.S. FARMS
BY SIZE OF FARM

Gross Farm Sales	1965-69	1970-74	1975-79
	----- Percent -----		
\$100,000 and over	23.4	24.9	24.9
\$40,000-99,999	19.2	19.7	18.2
\$20,000-39,999	17.8	17.8	14.9
\$10,000-19,999	17.8	15.5	12.2
\$5,000-9,999	14.4	11.5	7.6
\$2,500-4,999	9.4	8.8	6.9
Less than \$2,500	9.2	5.1	4.7
All Farms	13.5	16.4	16.0

Source: A Time To Choose: Summary Report on the Structure of
Agriculture, USDA, January 1981.

TABLE 39

FARM TENURE AND AGE OF FARMERS IN OHIO AND U.S.

Tenure	1969	1978	Percent Change 1978/69
<u>OHIO</u>			
Full Owner	74,016	57,696	-22.0
Part Owner	24,016	26,126	+ 8.8
Tenant	13,300	11,999	- 9.8
Total	111,332	95,821	- 8.6
Part Time ^{1/}	70,017	51,129	-27.0
% of Total	63	52	
Average Age (Yr.)	50	49	
<u>UNITED STATES</u>			
Full Owner	1,705,720	1,452,732	-14.8
Part Owner	671,607	713,679	+ 6.3
Tenant	352,923	313,455	-11.2
Total	2,730,250	2,479,866	- 9.2
Part Time ^{1/}	1,482,292	1,152,658	-22.2
% of Total	54	47	
Average Age(Yr.)	50	50	
<u>OHIO AS PERCENT OF U.S.</u>			
Full Owner	4.3	4.0	
Part Owner	3.6	3.7	
Tenant	3.8	3.8	
Total	4.1	3.9	
Part Time ^{1/}	4.7	4.4	

^{1/} Principle occupation other than farming.

Source: Census of Agriculture

TABLE 40

FARMS^{1/} BY LEGAL FORM OF ORGANIZATION, OHIO

Organization	1974		1978		Percent
	Number	Percent	Number	Percent	Change 1978/74
Individual	62,178	88.5	62,820	85.4	1.0
Partnership	7,241	10.3	9,527	12.9	31.6
Corporation	758	1.1	1,213	1.6	60.0
Family held	n.a.	n.a.	1,062	1.4	n.a.
Other than Family Held	n.a.	n.a.	151	0.2	n.a.

1/ Farms with sales of \$2500 or more only

Source: Agriculture Census, 1974 and 1978.

TABLE 41

CONCENTRATION OF GROCERY STORE AND
SUPERMARKET SALES IN OHIO, BY SMSA

Standard Metropolitan Statistical Area	% of grocery store sales accounted for by Top 4 grocery store companies		Top 8 grocery store companies		Percentage of 1972 supermarket sales by top-- ^{1/}	
	1967	1972	1967	1972	4 firms	8 firms
Akron	52.6	53.4	72.7	70.9	67.9	(D)
Canton	33.5	33.7	48.1	53.9	43.9	67.7
Cincinnati, OH-KY-IN	46.7	49.9	56.2	63.3	(D)	85.8
Cleveland ^{2/}	58.4	51.9	68.1	65.8	67.8	(D)
Columbus ^{2/}	52.9	50.7	66.4	67.7	66.1	81.9
Dayton	37.0	40.8	46.2	51.4	50.6	65.0
Hamilton-Middletown	46.6	51.6	63.9	69.5	72 R	91.2
Huntington-Ashland, WV-KY-OH ^{2/}	32.0	29.2	44.9	41.8	42.0	62 A
Lima ^{3/}	56.4	52.1	65.4	63.4	79.1	93.2
Lorain-Elyria	45.6	42.5	61.2	64.8	56.2	79.7
Mansfield	54.6	50.8	70.7	73.9	65 A	95 A
Parketsburg-Marietta, WV-OH	n.a.	45.6	n.a.	62.4	(D)	78.3
Springfield ^{2/}	56.6	44.2	74.1	62.3	(D)	(D)
Steubenville-Weirton, OH-WV	57.3	43.2	68.5	(D)	66.3	84.1
Toledo, OH-MI	62.5	55.0	74.9	68.2	(D)	(D)
Wheeling, WV-OH	54.8	46.1	64.5	62.2	(D)	86.3
Youngstown-Warren	44.0	32.1	56.0	46.8	(D)	(D)
Ohio Average	49.5	45.5	62.6	58.2	61.5	80.9
U.S. Average	51.1	52.4	64.8	67.3	69.6	

Source: Special Tabulation by the Bureau of Census, USDC. Not yet available for 1977 Census.

(D) Withheld to avoid disclosing figures for individual companies

^{1/} Supermarkets are defined as grocery stores with a million dollars or more in annual sales. In several instances where Census disclosure rules prevented the reporting of precise concentration ratios, concentration ratio ranges are reported. In such instances concentration ratios are expressed in whole numbers followed by letters to indicate the range within which the true value lies.

A--The maximum and minimum values of the observation lie within ± 1.5 percentage points of the indicated value and the extreme values round to no more than one percentage point difference from the number shown.

R--The maximum and minimum values of the observation lie within ± 2.5 percentage points of the indicated value and the extreme values round to no more than a two percentage point difference from the number shown.

^{2/} Redefinition resulted in a change of 10 to 20 percent in 1972 SMSA grocery store sales.

^{3/} Redefinition resulted in a change of more than 20 percent in 1972 SMSA grocery store sales.

TABLE 42

CONCENTRATION IN SELECTED INDUSTRIES
PROCESSING FARM PRODUCTS, U.S.

Industry	Percent of Value of Shipments Accounted for By:					
	4 Largest Firms			8 Largest Firms		
	1967	1972	1977	1967	1972	1977
Meat Packing	27	26		38	39	
Chicken Dressing	NA	17		NA	27	
Turkey Dressing	28	40		39	56	
Cheese Mfg.	45	40		53	51	
Fluid Milk	21	17		29	26	
Catsup and Other Tomato Sauces	55	56		68	70	
Wheat Flour	37	37		55	62	
Prepared Feeds	NA	22		NA	30	
Sugar Beet Refining	67	66		96	97	
Soybean Oil Milling	55	52		73	68	
Malt Beverages	40	52		59	70	
Potato Chips	41	49		55	61	
Unweighted Average	41.6	39.5		56.5	54.8	

Source: Census of Manufactures, Bureau of Census, USDC.

TABLE 43

NUMBER AND RELATIVE SIZE OF ESTABLISHMENTS
HANDLING AGRICULTURAL PRODUCTS IN OHIO

Industry	Number of Establishments			Share With More Than 20 Employees		
	1967	1972	1977	1967	1972	1977
Processing Firms - All	1455	1216	1013	42%	44%	49%
Meat Products	284	238	227	38%	39%	35%
Dairy Products	282	214	158	49%	48%	51%
Canned & Frozen Foods	122	105	81	44%	49%	53%
Grain Mills	111	102	97	31%	38%	41%
Bakery Products	223	189	290	44%	44%	43%
Soybean Oil Mills	5	4	5	100%	100%	100%
All Other Processors	428	364	155	40%	46%	31%
Marketing Firms						
Grain Markets	451	418	435	NA	NA	NA
Livestock Markets	137	120	78	NA	NA	NA

Sources: Census of Manufactures and Census of Wholesale Trade, Bureau of the Census, USDC.

TABLE 44

CONCENTRATION IN SELECTED INDUSTRIES SUPPLYING
FARM INPUTS, U.S.

Industry	Percent of Value of Shipments Accounted for By:					
	4 Largest Firms			8 Largest Firms		
	1967	1972	1977	1967	1972	1977
Ammonia Fertilizers	29	26		46	43	
Superphosphate Fertilizers	39	38		60	61	
Mixed Fertilizers	35	42		61	62	
Agricultural Chemicals	39	34		56	51	
Refined Petroleum Products	32	31		57	56	
Wheel Tractors	75	81		98	98	
Planting and Fertilizing Machinery	48	43		58	56	
Harvesting Machinery	67	71		82	81	
Haying Machinery	78	82		88	89	
Plows and Listers	NA	70		NA	81	
Unweighted Average	49.1	51.8		67.3	67.8	

Source: Census of Manufactures, Bureau of the Census, USDC.

TABLE 45

CHARACTERISTICS OF THE LARGEST U.S. FARMS, 1978

Sales Category	Farms		Gross Sales		Avg. Per Farm	
	Number	Percent of All Farms	\$ Bil.	Percent of All Farms	Acres	Sales
\$200,000-499,000	63,214	2.55	18.4	17.0	2,090	\$307,780
\$500,000-999,000	11,803	0.48	7.9	7.3	3,829	702,200
\$1,000,000-4,999,000	5,464	.22	10.0	9.2	5,987	1,828,180
\$5,000,000-9,999,000	456	.02	3.1	2.8	10,673	6,731,840
Over \$10,000,000	370	.02	8.5	7.9	8,046	23,007,890
TOTAL	81,307	3.29	47.9	44.2	2,581	589,280

SOURCE: A Time to Choose: Summary Report on the Structure of Agriculture.
U.S.D.A., January 1981.

TABLE 46 VERTICAL INTEGRATION, CONTRACT COORDINATION AND MARKET EXCHANGE FOR
SELECTED FARM PRODUCTS IN THE U.S., PERCENT OF TOTAL PRODUCTION

Commodity	Vertical Integration		Contract Coordination ^{1/}		Market Exchange			
	Early	Mid	Early	Mid	Private Treaty ^{2/}		Organized ^{3/}	
	1960's	1970's	1960's	1970's	Early 1960's	Mid 1970's	Early 1960's	Mid 1970's
LIVESTOCK, POULTRY AND RELATED PRODUCTS								
Fed Cattle	3	5	20 ^{4/}	60 ^{4/}	27	25	50	10
Hogs	*	2	1	10	55	73	44	15
Fluid Grade Milk	3	3	95	95	2	2	*	*
Eggs	6	37	21	52	68	10	5	1
Broilers	5	10	91	89	4	1	*	*
Turkeys	4	15	30	50	66	35	*	*
CROPS								
Feed Grains	54 ^{5/}	40 ^{5/}	*	25	**	5	**	30
Food Grains	*	*	1	5	**	7	**	88
Processing Vegetables	8	10	67	85	**	5	**	*
Fresh Vegetables	25	30	20	20	**	35	**	15
Seed Crops	1	1	80	80	**	**	**	**
Tree Fruits	15	20	20	20	**	59	88	1
Sugar Beets	2	2	98	98	0	0	0	0
Potatoes	30	20	40	50	**	28	**	2

*Can not be estimated from available data; probably less than 1 percent.

**Can not be estimated from available data.

^{1/} Includes production and marketing contracts and producer agreements with marketing and bargaining cooperatives.

^{2/} Includes direct sales.

^{3/} Includes cooperatively-owned markets.

^{4/} Includes custom feeding.

^{5/} Includes grain fed to livestock on farms where produced.

Source: Compiled from Contract Production and Vertical Integration in Farming, 1960 and 1970, USDA, ERS-479, April 1972; Marketing Alternatives for Agriculture, U.S. Senate Committee on Agriculture and Forestry, April, 1976; The Food and Fiber System--How It Works, USDA, ERS, AIB-383, March, 1975; Coordination and Exchange in Agricultural Subsectors, North Central Regional Research Publication 228, January, 1976; Symposium: Vertical Coordination in the Pork Industry, AVI Publishing Co., 1972, Farm Structure: A Historical Perspective on Changes in the Number and Size of Farms, U.S. Senate Committee on Agriculture, Nutrition and Forestry, April, 1980; and 1977 Marketing Channel Survey, Sp. Cr. 7, Economics, Statistics and Cooperative Service, U.S.D.A., March 1979.

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